



Missouri Department of Health and Senior Services

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Ronald W. Cates
Interim Director

Bob Holden
Governor

March 15, 2002

765
Site: Herculaneum
ID# 400004246373
Break: 1.0
Other: 3-15-02
A717

Mr. Stephen Mahfood
Director
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102

40173285



SUPERFUND RECORDS

Dear Mr. Mahfood:

This is being sent to you in response to comments made by Mr. Jeffrey Zelms in a March 11, 2002 letter to Jim Gulliford, Region VII EPA Administrator. Specifically, we are responding to the comments made in Sections C and D on pages 4-6 of Mr. Zelms' letter.

Mr. Zelms has misunderstood the subject of the February 26, 2002 Health Consultation on Blood Lead Results for 2001 Calendar Year. This document was not intended to evaluate any remedial or removal activities planned or currently under way. The document was simply a report examining the prevalence of elevated blood lead levels in all the Herculaneum children less than 72 months of age, which were tested in 2001. We believe this analysis clearly shows that children living on the east side of Highway 61 have a higher prevalence of elevated blood lead levels than seen in the other parts of Herculaneum.

Mr. Zelms' first comment concerned the fact that in doing our analysis, if a child had more than one blood lead test completed in 2001, we only considered the highest blood lead level. We consider that a valid approach for determining the prevalence of elevated blood lead levels during 2001. Again, the report was not designed to evaluate any trends or risk reduction measures. Instead, the goal was simply to evaluate the blood lead data from all of calendar year 2001.

The letter claims that the document was biased by not examining the prevalence of blood lead poisoning west of Highway 61. We don't believe this document is biased in any way. It simply reports the results of the analysis. In fact, if the document were to have included the figure given by Mr. Zelms for prevalence west of Highway 61 (6%), we believe that makes the 45% east of Highway 61 even more astounding. Furthermore, comparing this prevalence to other prevalence rates seen in Missouri and nationwide, amplifies its importance. For example, the latest statewide figures show a prevalence rate in Missouri of 8%; nationwide, the rate is 7.6%. In exposure studies we've completed at two former mining sites in Missouri, we have found rates of 14% (Jasper County site) and 17% (Big River Mine Tailings site). Finally, before completing this data analysis for Herculaneum, the highest prevalence rate seen anywhere in the state of Missouri was in St. Louis City. Preliminary analysis of data for St. Louis City from calendar

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year 2001 indicates a childhood lead poisoning prevalence rate of 30%. Clearly, the rate found east of Highway 61 in Herculaneum is significantly higher than any of these comparison rates.

Another bias listed is, "the implication in the report that the women of child bearing age are at risk because of the lead smelter." This statement was never made in the Health Consultation and was never implied in the Health Consultation. Instead, the document simply reported that of the females in the community of childbearing age, which were tested in 2001, one had a blood lead level that could cause adverse health effects to her developing fetus, if she became pregnant while at that level. Given the data on this woman's blood lead level, and the literature regarding lead levels in pregnant women, we believe this conclusion is based on sound scientific judgment.

Mr. Zelms also stated that the Health Consultation does not reflect the current situation in Herculaneum. We would agree that this probably does not reflect the current prevalence of childhood lead poisoning in the community for the following reasons:

- some families with young children may have moved out of or into Herculaneum;
- the activities conducted to lower lead exposure may have been effective;
- given the current season, we would expect blood lead levels now to be less than they may be later this year when children will spend more time outdoors. We would expect it to be more the exception than the norm for blood lead levels and prevalence of childhood lead poisoning to remain static rather than fluctuate somewhat over time. Again, this Health Consultation is based on calendar year 2001 only.

Regarding the statements made concerning the number of addresses given to Doe Run compared to the number of children reported with elevated blood lead levels, this issue has been clarified with EPA. They have been provided a table with all the addresses that we are aware of where children with elevated blood lead levels were residing at sometime in 2001.

In response to Mr. Zelms' point that 13% of the houses east of Highway 61 currently have children under 6 years of age with elevated blood leads residing in them, we offer the following comments:

- The comparison of this value to 45% of the children less than 72 months of age tested in 2001 is not a valid comparison. Each analysis is measuring something entirely different (i.e. number of homes vs. number of children).
- How does Doe Run know that there are only nine houses in this area with children under 72 months of age which currently have elevated blood lead levels? To actually obtain the current number of homes in this category would require that every child under 72 months of age in this area receive a blood lead test. To our knowledge, this has not been done. Therefore, we believe Mr. Zelms' statement is not based on fact.

Mr. Zelms makes the point that a multimedia approach is needed to address elevated blood lead levels. We agree with this statement and look forward to receiving his proposal regarding this issue. According to his letter, this proposal should be made "in the very near future."

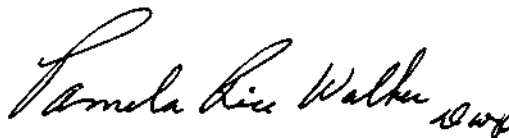
Mr. Zelms discusses comments Doe Run has made on the recent study released by the Missouri Department of Health and Senior Services (DHSS) regarding the Jasper County lead site. The comments have no relationship to the validity of the February 26, 2002 Health Consultation. We will respond to Doe Run on this issue in a separate correspondence. Mr. Zelms also mentions Doe Run's assertion that "conclusions were manipulated in the Preliminary Review of Draft-Big River Mine Tailings Superfund Site Lead Exposure Study of April 21, 1997." The 1997 Big River Mine Tailings Superfund Site Lead Exposure Study has nothing to do with whether or not the February 26, 2002 Health Consultation is valid. We will be happy to discuss that Study with Doe Run, if they so desire.

~~Mr. Zelms states that up until a year ago, DHSS had been an active partner in addressing "public~~ concerns in Herculaneum." DHSS remains an active partner in addressing public health concerns in Herculaneum. In fact, the February 26, 2002 Health Consultation was produced due to a request from the public. We are committed to continuing our participation in order to protect the public's health.

In summary, we believe the approach DHSS is taking to address public health issues and concerns in Herculaneum is appropriate with scientifically sound conclusions and recommendations being drawn.

If you have any questions regarding our responses, please feel free to contact Mr. Scott Clardy, Mr. Gale Carlson or me at (573) 751-6080.

Sincerely,



Pamela Rice Walker, Director
Division of Environmental Health
and Communicable Disease Prevention

PRW:GWM:SAC:amh

cc: Tony Petruska, EPA
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